REMARKS/DISCUSSION OF ISSUES

Status of the Claims

Claims 15-18 and 20 are currently pending in the present application. Claim 20 is the independent claim.

Rejections

1. Claims 3-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over applicant's admitted prior art (APA) in view of *Komino, et al.* (U.S. Patent 6,156,1510), further in view of *Loan, et al.* (U.S. Patent 6,296,711). For at least the reasons that follow, it is respectfully submitted that claim 20 and the claims that depend therefrom are allowable over the applied art.

The establishment of a *prima facie* case of obviousness required that *all* of the elements of a claim be found in the prior art. It follows that if a single element of a claim is missing from the prior art, a *prima facie* case of obviousness cannot be properly established. Moreover, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is a teaching, suggestion or motivation to do so found in the references relied upon.

Claim 20 is drawn to an apparatus for etching a wafer, and includes, inter alia:

"*...a detector, which detects a difference between the first pressure and the second pressure, and which terminates*

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the etching of the wafer when the difference in the pressure is greater than a predetermined value."

As the Office Action notes, the APA and *Komino, et al.* do not disclose that the apparatus is adapted to cease operation if a pressure measured by the pressure sensor is less than a predetermined value. The Office Action attempts to rely on *Loan, et al.* for this teaching. However, the reference to *Loan, et al.* fails to cure these deficiencies. The reference to *Loan, et al.* discloses that a differential in pressures measured by sensors is charted; and that the differential in pressures can be used to control or monitor the process. (Kindly refer to column 15, lines 61-65 of *Loan, et al.*)

Moreover, the reference to *Loan, et al.* discloses that if the process module controller 205 initially instructs the isolation valve 42, through the module 220, to maintain a certain flow of vapor or gas, the control module 220 can obtain pressure data from the pressure control module that controls pressure sensor. These data can be used to determine if there is enough pressure in the delivery conduit to deliver the requested flow. If the pressure is too high or too low, pressure control module 215 may, depending upon the implementation, signal to the process controller 205 that the task cannot be completed due to lack of pressure, or may, via an established adaptive relationship, signal in real time directly to a vaporization chamber pressure control module in order to increase or decrease vaporization chamber pressure. (Kindly refer to column 20, lines 8-26 of *Loan, et al.* for support for these assertions.)

Thus, while the reference to *Loan, et al.* discloses monitoring and control of a process as discussed above, the

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reference lacks at least the disclosure of a detector *which terminates the etching of the wafer when the difference in the pressure is greater than a predetermined value*, as specifically recited in claim 20. Thus, the applied art lacks at least the disclosure of one of the features of claim 20. For at least these reasons, applicant respectfully submits that claim 20, and the claims that depend are patentable over the applied art. Allowance is earnestly solicited.

Conclusion

In view of the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the rejections of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact William S. Francos, Esq. (Reg. No. 38,456) at (610) 375-3513 to discuss these matters.

Petition is hereby made for a two-month extension of time under 37 C.F.R. §1.136 extending the period of reply to January 11, 2005. Permission is hereby given to charge Deposit Account Number 50-0238 for the required fee under 37 C.F.R. §1.17.

If necessary, the Commissioner is hereby authorized in this, concurrent, and further replies to charge payment or credit any overpayment to Deposit Account Number 50-0238 for any additional fees under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17.

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Respectfully submitted on behalf of:
Oki Electric Company Co., Ltd.

William S. Francos, Esq.
Reg. No. 38,456

Date: December 29, 2004

VOLENTINE FRANCOS & WHITT, P.L.L.C.
Suite 1260
One Freedom Square
11951 Freedom Dr.
Reston, VA 20190
Tel.: (703) 715-0870
Fax.: (703) 715-0877

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